CLAIMS

1. A motor vehicle, comprising:

an internal combustion engine;

a fuel tank that stores a fuel, which is to be combusted by the internal combustion engine;

an accumulator unit that accumulates electrical energy therein;

a measurement unit that measures a state of charge of the accumulator unit;

a pressure regulation mechanism that receives a supply of electrical energy from the accumulator unit and regulates an internal pressure of the fuel tank with the received supply of electrical energy; and

a pressure regulation control module that controls the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism, based on the state of charge of the accumulator unit measured by the measurement unit on a start of or in the course of the pressure regulation by the pressure regulation mechanism.

2. A motor vehicle in accordance with claim 1, wherein said pressure regulation control module controls the pressure regulation by the pressure regulation mechanism, in order to keep the state of charge of the accumulator unit higher than a preset low charge state.

3. A motor vehicle in accordance with claim 1, wherein said pressure regulation control module controls the pressure

regulation by the pressure regulation mechanism, in order to apply a negative pressure into the fuel tank at a time of supply of the fuel to the fuel tank.

4. A motor vehicle in accordance with claim 1, wherein said pressure regulation control module controls the pressure regulation by the pressure regulation mechanism, in order to apply a negative pressure into the fuel tank when said motor vehicle stops in an undrivable state for a preset long time period.

5. A motor vehicle in accordance with claim 1, wherein the state of charge of the accumulator unit represents a voltage level of the accumulator unit, and

the measurement unit comprises a voltage sensor that measures the voltage level of the accumulator unit.

6. A motor vehicle in accordance with claim 2, wherein the preset low charge state represents a low charge level that does not make said motor vehicle in a drivable state on a start of said motor vehicle.

7. A motor vehicle in accordance with claim 2, wherein when the state of charge of the accumulator unit measured by the measurement unit decreases below a preset alert charge state, which is higher than the preset low charge state, said pressure regulation control module lowers the electrical energy supplied from the accumulator unit to the pressure regulation mechanism and controls the pressure regulation mechanism to regulate the internal pressure of the fuel tank with the lowered

supply of electrical energy.

8. A motor vehicle in accordance with claim 7, wherein the preset alert charge state represents a total state of charge as a sum of the preset low charge state and an amount of electrical energy required for the regulation of the internal pressure of the fuel tank.

9. A motor vehicle in accordance with claim 2, wherein when the state of charge of the accumulator unit measured by the measurement unit decreases below a preset alert charge state, which is higher than the preset low charge state, or decreases to the preset low charge state, said pressure regulation control module controls the pressure regulation mechanism to stop the pressure regulation.

10. A motor vehicle in accordance with claim 9, wherein the preset alert charge state represents a total state of charge as a sum of the preset low charge state and an amount of electrical energy required for the regulation of the internal pressure of the fuel tank.

11. A motor vehicle, comprising:

an internal combustion engine;

a fuel tank that stores a fuel, which is to be combusted by the internal combustion engine;

an accumulator unit that accumulates electrical energy therein;

a measurement unit that measures a state of charge of the accumulator unit;

a pressure regulation mechanism that receives a supply of electrical energy from the accumulator unit and regulates an internal pressure of the fuel tank with the received supply of electrical energy;

a charging system that is capable of charging the accumulator unit; and

a pressure regulation control module that controls the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism and the charging of the accumulator unit by the charging system, based on the state of charge of the accumulator unit measured by the measurement unit on a start of or in the course of the pressure regulation by the pressure regulation mechanism.

12. A motor vehicle in accordance with claim 11, wherein the charging system comprises a high-voltage power source used to drive said motor vehicle, and

the accumulator unit comprises a low-voltage power source.

13. A motor vehicle in accordance with claim 11, wherein said pressure regulation control module controls the pressure regulation by the pressure regulation mechanism and the charging of the accumulator unit by the charging system, in order to keep the state of charge of the accumulator unit higher than a preset low charge state, on termination of the pressure regulation by the pressure regulation mechanism.

14. A motor vehicle in accordance with claim 13, wherein

when there is a possibility that the state of charge of the accumulator unit decreases to or below the preset low charge state, said pressure regulation control module controls the pressure regulation mechanism and the charging system to regulate the internal pressure of the fuel tank simultaneously with charging the accumulator unit.

15. A motor vehicle in accordance with claim 13, wherein when there is a possibility that the state of charge of the accumulator unit decreases to or below the preset low charge state, said pressure regulation control module controls the pressure regulation mechanism and the charging system to interrupt the pressure regulation, start charging the accumulator unit, and allow resumption of the pressure regulation after completion of the charging.

16. A motor vehicle in accordance with claim 13, wherein the preset low charge state represents a low charge level that does not make said motor vehicle in a drivable state on a start of said motor vehicle.

17. A motor vehicle in accordance with claim 11, wherein said pressure regulation control module controls the pressure regulation by the pressure regulation mechanism, in order to apply a negative pressure into the fuel tank at a time of supply of the fuel to the fuel tank.

18. A motor vehicle in accordance with claim 11, wherein said pressure regulation control module controls the pressure regulation by the pressure regulation mechanism, in order to

apply a negative pressure into the fuel tank when said motor vehicle stops in an undrivable state for a preset long time period.

19. A motor vehicle in accordance with claim 11, wherein the state of charge of the accumulator unit represents a voltage level of the accumulator unit, and

the measurement unit comprises a voltage sensor that measures the voltage level of the accumulator unit.

20. A control method of a motor vehicle, said motor vehicle being equipped with a fuel tank that stores a fuel; an accumulator unit that is charged with electric power and discharges electric power; and a pressure regulation mechanism that receives a supply of electric power from the accumulator unit and regulates an internal pressure of the fuel tank with the received supply of electric power,

said control method comprising the steps of:

(a) measuring a state of charge of the accumulator unit on a start of or in the course of the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism; and

(b) controlling the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism, based on the state of charge of the accumulator unit measured in said step (a).

21. A control method of a motor vehicle, said motor vehicle being equipped with a fuel tank that stores a fuel;

an accumulator unit that is charged with electric power and discharges electric power; a pressure regulation mechanism that receives a supply of electric power from the accumulator unit and regulates an internal pressure of the fuel tank with the received supply of electric power; and a charging system that is capable of charging the accumulator unit,

said control method comprising the steps of:

(a) measuring a state of charge of the accumulator unit on a start of or in the course of the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism; and

(b) controlling the regulation of the internal pressure of the fuel tank by the pressure regulation mechanism and the charging of the accumulator unit by the charging system, based on the state of charge of the accumulator unit measured in said step (a).